

the proportion of the optimal collection as redistributed according to the pattern of demands does not resemble the proportion of the actual holdings.

In order to measure differences between the actual and the optimal, the writer subtracted the optimal sizes of the divisions and classes from the actual sizes of the divisions and classes. The results are shown in Table II.

Positive differences mean that the actual collection exceeds demands in the area, while negative differences mean that the actual size of the collection fails to meet the demands.

Compared to a similar study conducted for the period between September 5 and October 9, 1975, the 25-week cumulative results indicate 14 more deficit areas--57 deficit divisions for the period from September 5 through October 9, 1975, and 71 deficit divisions for the 25-week period between September 5, 1971, through February 26, 1976.

Based on the 25 weeks' data of deficits and surpluses, purchase recommendations are made in Table III.

It is assumed that the strongest class; i.e., 900's, is expected to differ more from a strong hypothetical class than the average of differences between the twelve classes. The size of the stronger hypothetical class is thus determined by adding the average of differences between the twelve classes to the size of the strongest; i.e., +6,597. Then, the negative strength of all classes is measured by this hypothetical number by subtracting each size from the hypothetical size. Percentages of the differences of the sum of the differences are then computed. A similar procedure is employed for the divisions of the ten Dewey Decimal classes. Thus, percentages for purchase in each class and each division are recommended according to the magnitude of difference between the hypothetical strongest and the size of the class or the division. The differences between the strongest and the hypothetical strongest allow a